



BASIC ASSESSMENT REPORT (REGULATION 23/11) Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
 2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
 3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
 4. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
 5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
 6. An incomplete report shall be rejected.
 7. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
 8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
 9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
 10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
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DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

File Reference Number:

Application Number:

Date Received:

*** Submission to State Departments (Number 3 above)**

Has a draft report for this application been submitted to all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

Y

Is a list of State Departments referred to above been attached to this report?

if no, state reasons for not attaching the list.

Y

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

Proposed construction of the Reservoir in Portion 19 of the farm Holfontein 711R

Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

X

Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES
X

If yes, describe the legislation and the Competent Authority administering such legislation

National Water Act , (Act 36 of 1998) Department of Water and Sanitation

If yes, have you applied for the authorisation(s)?

If yes, have you received approval(s)? (attach in appropriate appendix)

NO
X

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Constitution of the Republic of South Africa (NO. 108 of 1996)	Parliament	18 December 1996
National Environmental Management Air Quality amendment Act (No. 20 of 2014)	Department of Environmental Affairs	19 May 2014
Occupational Health & Safety Act (Act 85 of 1993) and relevant Regulations	Department of Labour	23 June 1993
Conservation of Agricultural Resources Act, 1963 (Act 43 of 1983)	Department of Agriculture	21 April 1983

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Occupational Health & Safety Act (No. 85 of 1993) and relevant Regulations	Department of Labour	23 June 1993
National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004)	The South African National Biodiversity Institute	1 September 2004
National Water Act, 1998 (Act 36 of 1998)	Department of Water and Sanitation	26 August 1998
Government Notice No. R. 543, R. 544 and R. 544 and R. 546	Department of Environmental Affairs	18 June 2010
South African Heritage Resources Act, 1999 (Act 25 of 1999)	<ul style="list-style-type: none"> • South African Heritage Resources Agency (SAHRA) • Provincial Heritage Resources Authority – Gauteng (PHRA-G) 	28 April 1999

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	Alternative property	Portion 2 of the farm Modderfontein 236-IR

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

<p>Initially one alternative site was identified, indicated on the locality plan (attached hereto as appendix A) The suitability of the site was investigated by conducting a gravity survey and was subsequently rejected as the dolomite layer was too close to the surface and therefore posed unacceptably high risk to the project.</p> <p>In addition, the cross boundary pipeline authorisation from the National Department of Environmental Affairs would become necessary as the alternative site falls within Mpumalanga Province which is outside the Gauteng boundary of the previously authorised pipeline network extension (Gaut: 002/08-09/N0938 dated 16/07/2009).</p> <p>No further alternative sites for the proposed reservoir were found as the location was limited by the need for the synchronisation of the top water level in the new reservoir with that of the existing 25Ml reservoir.</p>
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NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

Size of the activity: _____

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Proposed activity	66 300 m ²
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	Ha/ m ²

or, for linear activities:

Proposed activity	Length of the activity:
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity	Size of the site/servitude:
	1.7267Ha
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	Ha/m ²

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?		NO X
If NO, what is the distance over which a new access road will be built	600m	

Describe the type of access road planned:

A paved access road/driveway 4m wide to the site will be situated in Laris Street, 600m from the intersection of Laris Street and the R555. Gautrans will be approached to relax the 800m access restriction from an intersection.

Include the position of the access road on the site plan.

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	
If NO, what is the distance over which a new access road will be built	
Describe the type of access road planned:	

Include the position of the access road on the site plan.

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?	
If NO, what is the distance over which a new access road will be built	
Describe the type of access road planned:	

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated Number of times
(only complete when applicable)

6. SITE OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document. The site or route plans must indicate the following:

- the scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix B. It should be supplemented with additional photographs of relevant features on the site, where applicable.



8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity. To be attached in the appropriate Appendix C.

1 SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Further:

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives times (Complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route (complete only when appropriate for above)

Section B – Location/route Alternative No. (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:

Portion 19 of the Farm Holfontein 71 IR

(Farm name, portion etc.)

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:

Latitude (S):	Longitude (E):
-26.126698	28.490167°

In the case of linear activities:

Alternative:

Latitude (S): Longitude (E):

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

• Starting point of the activity	o	o
• Middle point of the activity	o	o
• End point of the activity	o	o

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix D

Addendum of route alternatives attached [REDACTED]

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat 1:60	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain X	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep)		NO X
Dolomite, sinkhole or doline areas	YES X	
Seasonally wet soils (often close to water bodies)	YES X	
Unstable rocky slopes or steep slopes with loose soil		NO X
Dispersive soils (soils that dissolve in water)	YES X	
Soils with high clay content (clay fraction more than 40%)		NO X
Any other unstable soil or geological feature	YES X	
An area sensitive to erosion	YES X	

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) NO
X

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)
Latitude (S): [REDACTED] **Longitude (E):** [REDACTED]

c) are any caves located within a 300m radius of the site(s) NO
X

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)
Latitude (S): [REDACTED] **Longitude (E):** [REDACTED]

d) are any sinkholes located within a 300m radius of the site(s) NO
X

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)
Latitude (S): [REDACTED] **Longitude (E):** [REDACTED]

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? YES
X

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =5	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % = 95	Paved surface (hard landscaping) % =?	Building or other structure % =	Bare soil % =

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site YES
X

If YES, specify and explain:

Hypoxis hemerocallidea (Orange list) occurs on the uncultivated areas on the site

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site. YES
X

If YES, specify and explain:

A wetland is present within 500m of the proposed construction area

Are there any special or sensitive habitats or other natural features present on the site? YES
X

If YES, specify and explain:

Was a specialist consulted to assist with completing this section NO
X

If yes complete specialist details

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone:

Cell:

E-mail:

Fax:

Are any further specialist studies recommended by the specialist?

If YES, specify:

If YES, is such a report(s) attached?

If YES list the specialist reports attached below

Signature of specialist: _____ Date: _____

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

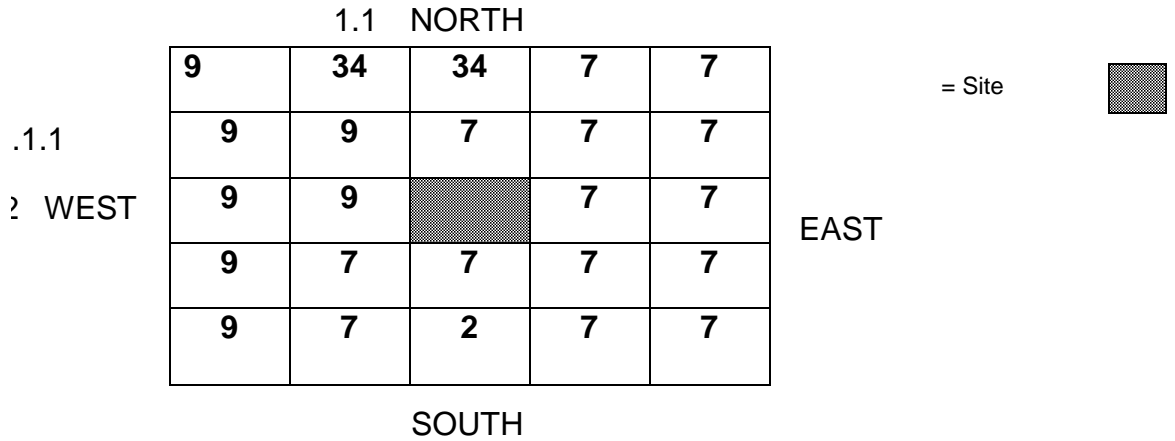
Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m



Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an “A” and with an “N” respectively.

Have specialist reports been attached

YES	
X	

If yes indicate the type of reports below

Geo-technical report

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

Etwatwa is predominantly a formal, established township consisting of residential housing, shops, clinics, schools community centers and open areas.

The proposed project falls within Ward 67, and the residence of Extension 19 who will benefit from the project are of Ward 66, in the East Rand region

The project aims to augment the capacity of the existing reservoir supply zone, thereby improving the water pressure and reliability of the water supply to residents of Extension 19 and thereby improving the standard of living of residents in the area

The Daveyton/Etwatwa complex is one of four major concentrations of historically disadvantaged communities in the Ekurhuleni Metropolitan Municipal area.

This community is situated on the outskirts of the main urban area which is an area furthest removed from where the bulk of job opportunities are situated.

Together the four areas accommodate approximately 65% of the total population of the Metropolitan area, of which 24% are situated in the Katorus complex, 14% in the Tembisa and Kwatsaduza complexes respectively, and approximately 12% in the Daveyton complex.

Service Upgrading Priority Areas:

The Ekurhuleni Development guide, October 2010 recommends that EMM should focus its capital expenditure and operational programs towards upgrading services and facilities in the previously disadvantaged areas to levels comparable with that of the rest of the Metro. There are four major complexes of disadvantaged communities earmarked as Service Upgrading:

1. Tembisa;
2. Katorus;
3. Kwatsaduza; and
4. Daveyton/Etwatwa.

As a principle the EMM will focus on development of the township as a model neighborhood with 'a CBD in its own right in the long term.

The project activity takes place in Ward 67, within the bounds of the greater Ekurhuleni Metropolitan Municipality. Socio economic outlook for the ward is similar to that of the municipality.

The following profile is derived from Stats SA for the Ekurhuleni Metropolitan Municipality

People

According to Census 2011, the municipality has a total population of just under 3,2 million individuals, 78,7% of whom are black African. Whites make up 15,8%, and other race groups comprise the remaining 5,5%.

Of those aged 20 years and older, 3,3% have completed primary school, 35,3% have some secondary education, 35,5% have completed matric and 14,6% have some form of higher education.

Living Conditions

There are just over 1 million households in Ekurhuleni with an average of 2,9 persons per household.

The percentage of residents residing in formal households is 77,4%.

In terms of services, 57,2% of households have access to water within the dwelling.

Most households have access to electricity, with 82,2% of households using electricity for lighting.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Source of water Percentage

Regional/Local water scheme (operated by municipality or other water services provider)	95,8%
Borehole	1,1%
Spring	0,1%
Rain water tank	0,1%
Dam/Pool/Stagnant water	0,1%
River/Stream	0%
Water vendor	0,4%
Water tanker	0,9%
Other	1,5%

Economy

The municipality is an important manufacturing centre, often named “the workshop of the country” (Wikipedia). Due to the presence of OR Tambo International airport, a number of airline company headquarters are located within the municipality, such as South African Airways, Comair, Kulula.com, and 1Time, to name a few.

In terms of employment, there are about 1,6 million economically active individuals (i.e. those who are employed or unemployed but looking for work) residing within the municipality. Of these, 28,8% are unemployed. When the youth (15–34 years) are considered, there are about 840 000 economically active individuals, 36,9% of whom are unemployed.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure residence

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or paleontological sites, on or close (within 20m) to the site?

If YES, explain:

	NO X
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A Heritage Impact Assessment (HIA) is a requirement of the National Heritage Resources Act (Act No. 25 of 1999) Section 38

- (a) for linear activities exceeding 300m.
- (c) a development exceeding 5000 sq. metres which will change the character of the site
- (d) the rezoning of a site exceeding 10 000 sq. metres in extent

The site is subject to agricultural crop production. No heritage resources have been found and the site does not have any historical or spiritual significance

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

[REDACTED]

Will any building or structure older than 60 years be affected in any way?

[REDACTED]	NO
	X

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

If yes, please attached the comments from SAHRA in the appropriate Appendix F

[REDACTED]	NO
	X

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority (GDARD).

Has any comment been received from the local authority?

	NO
	X

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

Local authority is the applicant

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

	NO
	X

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

This is a draft revision of Basic Assessment Report, and is prepared while the Public Participation is in progress. This section will be updated once the Public Participation is complete.

The following may be included in the updated revision:

- The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants
- Any responses by the EAP to those representations, comments and views
- Any specific information required by the competent authority
- Any other matters required in terms of sections 24(4)(a) and (b) of the Act.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix E. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above (see Data base records)

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives "insert No. of duplicates" times (complete only when appropriate)

Section D Alternative No. "insert alternative number" (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
X	

If yes, what estimated quantity will be produced per month?

23 000m ³

How will the construction solid waste be disposed of (describe)?

Construction waste to be collected at the construction camp and on site through bulk containers (skips) and bins, and to be transported for disposal at the municipal landfill (i.e. waste disposal site) or other permitted site.
 Contractor to keep waste skips on site along the canal at the working area/ construction head. Such waste skips must be regularly emptied depending on the volume of waste generated. The skips must also not be more than 80% full at any given time.
 Mitigation measures for waste management included in the Environmental Management Plan (EMP)

Where will the construction solid waste be disposed of (describe)?

All waste will be disposed of at the nearest municipal landfill (i.e. waste disposal site) or other permitted site

Will the activity produce solid waste during its operational phase?

NO	
X	

If yes, what estimated quantity will be produced per month?

--

How will the solid waste be disposed of (describe)?

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES	
X	

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

There are 2 design options for the reservoir and tower foundations. The first option will require deep excavations resulting in a large amount of spoil material. The second option is that of piled foundations which would result in a minimum amount of spoil material. The piling option is still under investigation by engineers. As the applicant, Ekurhuleni Metropolitan Municipality has many suitable waste facilities for the disposal of the waste material from this project.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

	NO
	X

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

	NO
	X

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

	NO
	X

If yes, what estimated quantity will be produced per month?

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, what estimated quantity will be produced per month?

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility?

	NO
	X

If yes, provide the particulars of the facility:

Facility name:

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Cell:

Fax:

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES	
X	

If yes, what estimated quantity will be produced per month?

1 kl

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	
X	
	NO
	X

If yes describe how it will be treated and disposed off.

Construction phase of the project will make use of portable toilets which will be removed and disposed of at a registered site.

Operational phase will connect to the existing water borne sewage system in Etwatwa township or make use of a dry toilet system as the site is unmanned apart from a security guard and periodic maintenance crews

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	
X	

If yes, is it controlled by any legislation of any sphere of government?

	NO
	X

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Air quality management and dust control is governed by the National Environmental Management Air Quality Act (Act No 39 of 2004. However, no formal authorization is required under the aforementioned legislation for the activities associated with the project. Dust control will be carried out in accordance with the approved EMP.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
	X				

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

	liters
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BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix J

Does the activity require a water use permit from the Department of Water Affairs?

YES
X

If yes, list the permits required

The activity falls within a wetland 500m buffer. The activity will not have any direct impact on the wetland.
General authorization will be applied for under Section 21(c) & (i) of the National water Act

If yes, have you applied for the water use permit(s)?

If yes, have you received approval(s)? (attached in appropriate appendix)

NO

NO

3. POWER SUPPLY

Please indicate the source of power supply e.g. Municipality / Eskom / Renewable energy source

Application will be made to Eskom Distribution

If power supply is not available, where will power be sourced from?

A 200 KVA generator will be installed as a backup power source

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient::

The power consumption for lights (**if LED / Energy saving** is minimal and in addition a DB board for Small Power and Lighting will be used
Energy Saving in pump room the options are:

Energy efficient lighting

- Inside building would be dependent on height of the roof, whether high bay lights would be used, or LED low bay lights or just normal ballast type, or LED lights. Will be determined by the building design
- For the area lighting new LED floodlight would suffice

On the control side:

- A timer switch with motion sensor for the building interior is recommended

Recommendation for exterior is, day night switch, system designed so that at certain times of the night only four of perimeter lights (corners of fencing for example) and walkway must be on. Motion sensors (beams) can also be used to activate the rest, for security purposes if needed. Implementation of the design is dependent on capex available

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Building design has not been finalised

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

This section will be completed in the final report

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

This section will be completed in the final report

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

2 Impact Assessment

2.1 Methodology to Rate and Assess Significance

Significance is the product of probability and severity rating divided by the mitigation potential:

$$\text{Significance} = \frac{\text{Probability} \times \text{Severity}}{\text{Mitigation}}$$

Probability and Severity will be determined based on the following:

2.1.1 Severity:

Determination of the severity of an impact is a function of intensity, duration and extent, divided by the extent to which mitigation can successfully be applied:

$$\text{Severity} = \frac{\text{intensity} + \text{duration}}{\text{extent}}$$

Each of the 4 factors used to determine the severity of an impact, are described below:

2.1.1.1 Intensity factor

The level of intensity is the sum of volume, toxicity, social impact and ecological impacts. Note that either Volume A or Volume B is used (refer to the description) but never both at the same time.

	Low (1)	Medium (3)	High (5)
Volume (A) (refers to process input and output substances/ material or products)	Less than 80 m3 at any one time (or low volumes relative to industry/commercial standards)	Between 80 and 300 m3 at any one time (or medium volumes relative to industry/commercial standards)	In excess of 300 m3 at any one time (or high volumes relative to industry/commercial standards)
Volume (B) (refers to natural resources)	Relatively small	Medium	Large
Toxicity	Toxicity is on par with everyday goods in wide-spread use and is biodegradable.	Some impact on immediate communities, but cannot be considered as disruptive	Toxicity is on par With toxic/dangerous/ Flammable substances that are Non-biodegradable.
Ecological	Natural functions not affected or negligible	Environment affected but natural functions and processes continue (Some damage or wildlife injury may occur).Impact is reversible or irreplaceable loss will not occur	Environment affected to the extent that natural functions are altered to the extent that it will permanently or over the long term cease (Major damage or wildlife injury could occur). Irreplaceable loss will occur

2.1.1.2 Duration

Duration is assessed and a factor awarded in accordance with the following:

	Duration of Impact	Duration Factor
Short term	The duration of the is impact is 1 Year or less	Factor 1
Medium term	The duration of the is impact is 1-5 Years	Factor 3
Long term	The duration of the is impact is 5 to 25 years	Factor 4
Permanent	The duration of the is impact is longer than 25 years and can be considered as permanent	Factor 5

2.1.1.3 Extent

Describes the physical extent the impact and factors are awarded according to the following:

	Extent of Impact	Extent Factor
Site	The impact only exists within the activity's footprint	Factor 1
Local	The impact could impact on the whole or a considerable portion of the properties on which the activity is undertaken as well as neighbouring properties	Factor 3

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Regional	The impact could affect the area, neighbouring as well as other areas further way than the immediate neighbours	Factor 5
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2.1.2 Probability
Probability describes the likelihood of the impact actually occurring, and is rated as follows:

	Possibility that the impact will Occur	Rating
Improbable	Low possibility of impact occurring due to design or history	1
Probable	Distinct possibility that impact will occur	2
Highly probable	Most likely that impact will occur	3
Definite	Impact will definitely occur	5

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation :
<i>Protection of topsoil Loss of topsoil Compaction of topsoil</i>	3	<i>Topsoil should be stockpiled separately from spoil material and used for rehabilitation of the area. Stockpiles should be protected from wind and rain and erosion weeds should be controlled.</i>	2
<i>Fill material</i>	0	<i>Material should be sourced from a licensed facility/borrow pit</i>	0
<i>Excavated spoil material</i>	0	<i>All subsoil material that has been excavated and not used on site should be removed and disposed of at a licensed facility.</i>	0
<i>Rescue of orange data species</i>	2	<i>A rescue operation should be carried out prior to construction. Reintroduction of the species should be included in the landscaping plan.</i>	1
<i>Reduction of agricultural land</i>	3	<i>Loss of agricultural land will be permanent</i>	3
<i>Degradation of the wetland</i>	2	<i>Storm water should be managed as per the recommendation of WCS. Slopes towards the wetland should be gradual to avoid erosion. The construction area should be fenced to avoid vehicle access to the wetland.</i>	1
<i>Spills and Waste</i>	2	<i>Adequate containers should be provided. Waste should be sorted and removed to a licensed facility on a regular basis. Spills from vehicles and equipment should be removed immediately. Vehicle servicing and washing should be limited to an area with an impermeable surface and sump collection for runoff. Temporary ablutions provided during construction should be serviced regularly and leaks avoided.</i>	1
<i>Wetland</i>	2	<i>Adequate silt fencing should be erected around all stock piled soil to prevent any silt from entering the wetland. All water diverted away from the construction site should be managed to ensure the wetland is not adversely affected.</i>	1
<i>Alien invasive species</i>	2	<i>Alien invasive species should be removed as soon as possible before they go to seed. Control should continue until rehabilitation of the site is complete.</i>	1
<i>Safety and security</i>	2	<i>The site should be fenced prior to construction. Excavations should be barricaded with visible netting. Access control and security measures put in place to safeguard workers and equipment. Construction workers should be supplied with</i>	1

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

		<i>appropriate PPE. Induction and awareness training should be provided to all site staff.</i>	
<i>Dust pollution</i>	2	<i>Dust should be monitored and suppression methods should be applied at all times during construction</i>	1
<i>Noise pollution</i>	3	<i>All noisy machinery should be fitted with silencers. If work should take place during the night the surrounding landowners should be informed and noise levels kept to acceptable standards.</i>	2
<i>Light pollution</i>	3	<i>Security lighting should be placed where it does not impact on traffic travelling on the adjacent roads or on residents.</i>	2
<i>Increased storm water runoff</i>	2	<i>A storm water management plan must be developed to manage the increased runoff due to increased hard surfaces created.</i>	1
<i>Visual</i>	3	<i>The tower should be of a colour that will minimise its visual contrast when viewed against the sky. Anti-glare materials should be used in the construction process. The visual impact of the tower on the immediate vicinity is offset by the need for a reliable water service in the area.</i>	2

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
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Alternative 2

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
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List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

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3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<p>It is not foreseen that the facility will be decommissioned in the next 3 decades. Should the need arise however to replace the reservoir, the only impact will arise from the need to remove the structure. As such, noise, dust and demolition waste will be generated. The impacts will be of a short duration and can be mitigated to reduce the impact to that of a low significance.</p>			

Alternative 1

Alternative 2

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
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List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix G.

Preliminary Design Report

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

Given the nature of the activity – mainly construction related impacts, cumulative impacts will be of a low significance. The only cumulative impacts will be adding to the noise levels (from the road traffic) during the construction period. Construction will thus be limited to daylight hours (7 to 7). Changes in land use may contribute to impacts on the wetland in the vicinity. However, this can be effectively managed to ensure that storm water run-off from the proposed development enters the wetland in a diffused manner which does not cause changes to the hydrology or cause erosion. In terms of visual impact, the landscape is already urbanised, and as such will create an increased visual impact.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Proposal

The building of the Etwatwa reservoir and pump station triggers 1 listed activity in terms of regulation 544, June 2010 .The reservoir and pump station will increase the water storage capacity and improve the water pressure in the area.

The site is within 500m of a wetland, no direct impact on the wetland is anticipated.

The biodiversity scan identified one orange listed plant species in a degraded area between the Laris Road and the cultivated lands. This species should be rescued prior to construction and relocated in a suitable position during rehabilitation of the site.

The impacts were assessed and even though construction takes place within the wetland 500m buffer, the impact can be managed and mitigated in order that it does not have any detrimental effect on the wetland.

In conclusion, the siting of the reservoir and pump station will have a minimum effect on the receiving environment which was previously of a mainly agricultural nature. Based on this assessment, it is recommended that the proposal be authorised.

Alternative 1

Alternative 2

No-go (compulsory)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If the proposal for the construction of the Etwatwa reservoir and pump station is not approved the following can be expected:

- Etwatwa residence will not have a reliable source of potable water
- Low water pressure leads to damage of water fixtures and a waste of water
- Health problems manifest in areas where communities do not have access to clean water

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The building of the Etwatwa water reservoir will increase the water storage capacity thereby providing a reliable water source. The pump station will allow for a constant water pressure. Water tower serves the purpose of a gravity fed supply.

For alternative:

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

7. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner).

YES X	
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If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Based on the information contained in this report, and taking into account the outcome of the impact assessment, as well as all supporting documentation it is the recommendation of the practitioner that Environmental Authorisation (EA) be granted by the Gauteng Department of Agriculture and Rural Development.

Furthermore the following conditions for inclusion in the EA are recommended:

- The Environmental Management Programme should form part of the contract with the
- Contractor, as a means of facilitating compliance with environmental specifications and the implementation of mitigation measures;
- Preventative measures to avoid contaminated runoff from the construction area into the wetland, must be implemented throughout the construction phase;
- The Environmental Control Officer (ECO) currently responsible for overseeing activities at the site must be appointed to monitor compliance of the proposed reservoir. The ECO's primary role will be to assess whether construction activities are implemented as per the conditions stipulated in the EA and Environmental Management Programme;
- *Hypoxis hemerocallidea* must be rescued and removed from the construction site prior to site clearing.
- Rehabilitation of the site must be done in accordance with a rehabilitation plan

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Is an EMPr attached?	YES X

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

If the EAP answers yes to Point 7 above then an EMP is to be attached to this report as an Appendix H

EMPr attached

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix J Minutes of DWS meeting